

Official

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2000P07843US01

UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Banas
Serial No.: 09/772,274
Filed: 01/29/01
Group Art Unit: 2632
Examiner: Nguyen, P.
Title: METHOD TO ALERT A DROWSY DRIVER

Box AF
Assistant Commissioner of Patents
Washington, D.C. 20231

#10
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5.22.02APPEAL BRIEF

Dear Sir:

Subsequent to the filing of the Notice of Appeal on March 21, 2002, Appellant hereby submits its brief. Fees in the amount of \$320.00 are authorized to be charged to Deposit Account No. 50-1482 in the name of Carlson, Gaskey & Olds. Any additional fees or credits may be charged or applied to Deposit Account No. 50-1482 in the name of Carlson, Gaskey & Olds.

REAL PARTY IN INTEREST

The real party in interest is Siemens Automotive Corporation, the assignee of the entire right and interest in this Application.

RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

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2000P07843US01**STATUS OF CLAIMS**

Claims 19-24 stand finally rejected under 103(a). Claims 15-18 are allowed.

STATUS OF AMENDMENTS

All amendments have been entered.

SUMMARY OF THE INVENTION

As shown in Figure 1, this invention relates to a method of alerting a driver including the steps of monitoring a level of drowsiness and lowering a temperature in a vehicle cab 17 in response to an increase in a level of drowsiness. This is set forth in claim 19. Claim 20, which depends on Claim 19, adds that a climate control system 18 is used to lower the temperature.

Independent claim 22 claims a method to alert a driver including the steps of monitoring a level of drowsiness and pumping oxygen into the vehicle cab 17 in response to an increase in the level of drowsiness. Claim 23, which depends on claim 22, adds that a climate control system 18 is used to pump the oxygen.

ISSUES

- A. Are Claims 19-21 properly rejected under 35 U.S.C. 103(a) based on Kawakami in view of Saitho et al.
- B. Is Claim 20 properly rejected under 35 U.S.C. 103(a) based on Kawakami in view of Saitho et al.
- C. Are Claims 22-24 properly rejected under 35 U.S.C. 103(a) based on Kawakami in view of Brownlee?
- D. Is Claim 23 properly rejected under 35 U.S.C. 103(a) based on Kawakami in view of Brownlee?

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2000P07843US01**GROUPINGS OF CLAIMS**

- A. The rejection of Claims 19-21 is contested.
- B. The rejection of Claim 20 is separately contested, that is, the rejection of the Claim 20 does not stand or fall with the rejection of the other Claims.
- C. The rejection of Claims 22-24 is contested.
- D. The rejection of Claim 23 is separately contested, that is, the rejection of the Claim 18 does not stand or fall with the rejection of the other Claims.

PATENTABILITY ARGUMENTS**A. The rejection of Claims 19-21 under 35 U.S.C. 103(a) is improper.**

The Examiner finally rejected Claims 19-22 based on Kawakami et al. (U.S. Patent No. 5,488,353) in view of Saitoh et al. (U.S. Patent No. 5,813,989). Kawakami discloses an apparatus and method for improving driver awareness by providing a terminable warning when a decrease in awareness is detected. The terminable signal can be a visual warning means, an audio warning means, or a tactile warning means. After the driver is aware of the warning, the driver then responds by terminating the warning. Saitoh discloses a complex apparatus which uses an air conditioner system 2 to blow cool air in the vehicle. The Examiner argues that it would be obvious to implement the technique of Saitoh in Kawakami to lower the temperature in the vehicle to alert the driver.

The present invention is patentable and strikingly different from the combination of Kawakami and Saitoh. As described by the claims, the present invention provides a method to alert a driver including the steps of monitoring a level of drowsiness and lowering a temperature in a vehicle cab in response to an increase in the level of drowsiness. Claims 19-21 of the present invention all share this same or similar feature.

There would be no benefit to employing the cooling system of Saitoh in Kawakami to increase driver awareness, and therefore no motivation to combine these references. In Kawakami, a terminable warning is provided when a decrease in driver awareness is detected. The terminable warning is disclosed as being visual, audio or tactile. After the warning alerts the driver, the driver

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must then react to terminate the warning. In Saitho, cool air blows to alter the conditions in the vehicle.

Kawakami does not awaken the driver by altering conditions in the vehicle passenger compartment, but rather only produces a terminable warning that requires a reaction from the driver. If the cooling system of Saitho was employed in Kawakami, the cool air would not provide a terminable warning that requires a reaction by the driver, but would rather only cool the passenger compartment to alter vehicle conditions. The driver would not be alerted of his sleepiness and would not perform any action to terminate the flow of cool air. There would be no benefit to combining the cooling system of Saitho with the improved driver awareness system of Kawakami. The rejection is improper, and Appellant respectfully requests that it be withdrawn.

B. The rejection of Claim 20 under 35 U.S.C. 103(a) is improper.

The rejection of Claim 20 is separately contested from the rejection of Claim 19-21. Claim 20 sets forth that a climate control system is utilized to lower the temperature. Employing a climate control system in Kawakami to cool the air in the vehicle would alter the conditions in the passenger compartment, but would not produce a terminable signal as required by Kawakami. Cooling the air with a climate control system would require no reaction by the driver. This would not have been obvious, and the Examiner's rejection is improper.

C. The rejection of Claims 22-24 under 35 U.S.C. 103(a) is improper.

The Examiner finally rejected Claims 22-24 based on Kawakami et al. in view of Brownlee (U.S. Patent No. 5,910,773). Brownlee discloses an oxygen supply system which monitors oxygen content in a passenger compartment 12 and pumps oxygen into the passenger compartment 12 when the oxygen levels fall below a predetermined value. The Examiner argues that it would be obvious to implement the technique of Brownlee in the system of Kawakami to pump oxygen in the interior space of the vehicle to alert the driver.

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The present invention is patentable and strikingly different from the combination of Kawakami and Brownlee. As described by the claims, the present invention provides a method to alert a driver including the steps of monitoring a level of drowsiness and pumping an amount of oxygen into a vehicle cab in response to an increase in the level of drowsiness. Claims 22-24 all share this same or similar feature.

Brownlee does not disclose a system that pumps oxygen into a passenger compartment based on a driver's condition, but rather discloses a system that pumps oxygen into a passenger compartment in response to a drop in oxygen content in the passenger compartment below a predetermined percent, such as 20% by volume. The oxygen flows into the passenger compartment to reduce drowsiness of driver. The oxygen flow would stop when the concentration rises to a preselected percent, such as 24 to 25% by volume. If Brownlee was combined with Kawakami, oxygen would be pumped into the passenger compartment when the oxygen level drops below a specific percent, and not after a detected increase in a level of drowsiness in the driver. There would be no benefit to combining the oxygen system of Brownlee with Kawakami, and the rejection is improper.

There would also be no benefit to employing the cooling system of Saitho in Kawakami to increase driver awareness as Kawakami produces a terminable warning. If the oxygen supply system of Brownlee was employed in Kawakami, oxygen would flow into the passenger compartment without providing any terminable warning that requires a reaction by the driver. The oxygen would awaken the driver, but the driver would not be unaware oxygen is flowing into the passenger compartment. The oxygen would not produce a terminable warning that requires a driver reaction. There would be no benefit to combining the oxygen system of Brownlee with the improved driver awareness system of Kawakami. The rejection is improper, and Appellant respectfully requests that it be withdrawn.

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2000P07843US01**D. The rejection of Claim 23 under 35 U.S.C. 103(a) is improper.**

The rejection of Claim 23 is separately contested from the rejection of Claim 23-24. Claim 20 sets forth that a climate control system is utilized to pump oxygen. Neither reference discloses employing a climate control system. Additionally, employing a climate control system in Kawakami to pump oxygen in the vehicle would alter the conditions in the vehicle, but would not produce a terminable signal as required by Kawakami. There is no obviousness, and the Examiner's rejection is improper.

CLOSING

For the reasons set forth above, the rejection of all claims is improper and should be reversed. Appellant respectfully requests such an action.

Respectfully Submitted,

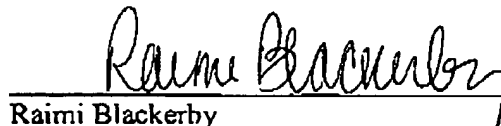
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Dated: May 21, 2002

CERTIFICATE OF FACSIMILE

I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office, TC2600, After Final, 703-872-9315 on May 21, 2002.


Raimi Blackerby

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CLAIM APPENDIX

What is claimed is:

15. A method to alert a driver comprising the steps of:
 monitoring a level of drowsiness; and
 adjusting a degree of opening of a vehicle aperture an amount that increases as said
 level of drowsiness increases.
16. The method as recited in claim 15 wherein said vehicle aperture is a window.
17. The method as recited in claim 15 wherein said vehicle aperture is a sunroof.
18. The method as recited in claim 15 wherein the step of adjusting said degree of opening of
 said vehicle aperture occurs when a predetermined level of drowsiness is monitored.
19. A method to alert a driver comprising the steps of:
 monitoring a level of drowsiness; and
 lowering a temperature in a vehicle cab in response to an increase in a level of
 drowsiness.
20. The method as recited in claim 19 wherein a climate control system is utilized to lower said
 temperature.
21. The method as recited in claim 19 wherein the step of lowering said temperature in said
 vehicle cab occurs when a predetermined level of drowsiness is monitored.

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22. A method to alert a driver comprising the steps of:
 monitoring a level of drowsiness; and
 pumping an amount of oxygen into a vehicle cab in response to an increase in said level
 of said drowsiness.
23. The method as recited in claim 22 wherein a climate control system is utilized to pump said
 amount of oxygen.
24. The method as recited in claim 22 wherein the step of pumping said amount of oxygen into
 said vehicle cab occurs when a predetermined level of drowsiness is monitored.

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